

# Prostate cancers are fewer, smaller on walnut-enriched diet

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New research from the School of Medicine at The University of Texas Health Science Center San Antonio indicates that eating a modest amount of walnuts can protect against prostate cancer.

The study is described in the journal *Cancer Investigation*. Researchers at the UT Health Science Center injected immune-deficient mice with human [prostate cancer cells](#). Within three to four weeks, tumors typically start to grow in a large number of these mice. The study asked whether a walnut-enriched diet versus a non-walnut diet would be associated with reduced [cancer formation](#). A previous study found this to be true for breast cancer.

## Results

Three of 16 mice (18 percent) eating the walnut-enriched diet developed prostate tumors, compared with 14 of 32 mice (44 percent) on the non-walnut [control diet](#). Also of note, the final average [tumor size](#) in the walnut-fed animals was roughly one-fourth the average size of the [prostate tumors](#) that developed in the mice eating the control diet.

"We found the results to be stunning because there were so few tumors in animals consuming the walnuts and these tumors grew much more slowly than in the other animals," said study senior author Russel Reiter, Ph.D., professor of cellular and structural biology at the Health Science Center. "We were absolutely surprised by how highly effective the

walnut diet was in terms of inhibition of human prostate cancer."

## Percentage of diet

The mice consumed a diet typically used in animal studies, except with the addition of a small amount of walnuts pulverized into a fine powder to prevent the rodents from only eating the walnuts. "The walnut portion was not a large percentage of the diet," Dr. Reiter said. "It was the equivalent to a human eating about 2 ounces, or two handfuls, a day, which is not a lot of walnuts."

Study co-author W. Elaine Hardman, Ph.D., of the Joan C. Edwards School of Medicine at Marshall University, published a study in 2011 that showed fewer and smaller tumors among walnut-fed mice injected with human breast cancer cells. Dr. Hardman formerly was a faculty member at the Health Science Center.

"The data to date suggest that using walnuts on a regular basis in the [diet](#) may be beneficial to defer, prevent or delay some types of cancer, including breast and prostate," Dr. Reiter said.

**More information:** [informahealthcare.com/doi/abs/ ...  
07357907.2013.800095](https://informahealthcare.com/doi/abs/10.1007/s12220-013-8000-9)

Provided by University of Texas Health Science Center at San Antonio

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